

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Previously presented) A DNA probe consisting of a first region having a sequence which is complementary to a target nucleotide sequence and a second region, following the first region, having a sequence comprising:

- a) at least one inosinic acid or derivative thereof; and
- b) either or both of at least one labeled nucleotide and at least one labeled nucleotide derivative, wherein the labeled nucleotide or labeled nucleotide derivative is selected from the group consisting of labeled adenylic acid, labeled thymidylic acid, labeled cytidylic acid, labeled guanylic acid, labeled uridylic acid, labeled inosinic acid and derivatives thereof;

and being incapable of hybridizing under stringent conditions to any nucleotide sequence of the target nucleotide sequence, wherein said stringent conditions are 6 x SSC, 0.5% sodium dodecyl sulfate, and 5 x Denhardt's reagent, pH is 7.0 at 68°C.

2-10. (Canceled)

11. (Previously presented) A kit for synthesizing a DNA probe, the kit comprising terminal transferase and:

- i) at least one of: unlabeled deoxyinosine 5'-triphosphate, labeled deoxyinosine 5'-triphosphate, unlabeled deoxyinosine 5'-triphosphate derivative and labeled deoxyinosine 5'-triphosphate derivatives;

- ii) unlabeled nucleotides and/or unlabeled nucleotide derivatives; and

- iii) labeled nucleotides and/or labeled nucleotide derivatives,

wherein said nucleotides or nucleotide derivatives are selected from the group consisting of deoxyadenosine 5'-triphosphate, deoxythymidine 5'-triphosphate, deoxycytidine 5'-

triphosphate, deoxyguanosine 5'-triphosphate, deoxyuridine 5'-triphosphate, deoxyinosine 5'-triphosphate and derivatives thereof.

12-14. (Canceled)

15. (New) The DNA probe of claim 1 wherein the labeled nucleotide or labeled nucleotide derivative is labeled adenylic acid.

16. (New) The DNA probe of claim 1 wherein the labeled nucleotide or labeled nucleotide derivative is labeled thymidylic acid.

17. (New) The DNA probe of claim 1 wherein the labeled nucleotide or labeled nucleotide derivative is labeled cytidylic acid.

18. (New) The DNA probe of claim 1 wherein the labeled nucleotide or labeled nucleotide derivative is labeled, labeled guanylic acid,

19. (New) The DNA probe of claim 1 wherein the labeled nucleotide or labeled nucleotide derivative is labeled uridylic acid,

20. (New) The DNA probe of claim 1 wherein the labeled nucleotide or labeled nucleotide derivative is labeled inosinic acid.